[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0998; Directorate Identifier 2011-NM-249-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This proposed AD was prompted by a new revision to the airworthiness limitations of the maintenance planning data document. This proposed AD would require revising the maintenance program to update inspection requirements to detect fatigue cracking of principal structural elements (PSEs). We are proposing this AD to detect and correct fatigue cracking of various PSEs, which could adversely affect the structural integrity of these airplanes.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: nancy.marsh@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2012-0998; Directorate Identifier 2011-NM-249-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

In accordance with airworthiness standards requiring "damage-tolerance assessments" (Part 25 of the Federal Aviation Regulations, Section 1529), all products certificated to comply with that section must have Instructions for Continued Airworthiness that include an Airworthiness Limitations Section (AWLs). The AWLs set forth:

- Mandatory replacement times for structural components,
- Structural inspection intervals, and
- Related approved structural inspection procedures necessary to show compliance with the damage-tolerance requirements.

Compliance with the terms specified in the AWLs is required by 14 CFR 43.16 (for persons maintaining products) and 14 CFR 91.403 (for operators).

As airplanes gain service experience, or as the result of post-certification testing and evaluation, it might become necessary to add additional life limits or structural inspections in order to ensure the continued structural integrity of the airplane. The manufacturer might revise the AWLs to include new or more restrictive life limits and inspections. However, in order to require compliance with those revised life limits and/or inspection intervals, the FAA must engage in rulemaking. Because loss of structural integrity would result in an unsafe condition, it is appropriate to impose these

requirements through the airworthiness directive (AD) process.

Boeing has completed additional analyses of fatigue cracking of PSEs on certain Model 737 airplanes, which included:

- Crack growth analysis,
- Service experience analysis,
- Crack growth testing,
- Fatigue testing, and
- Analysis of the effectiveness of applicable non-destructive inspection techniques to detect cracking and other anomalies.

The results of the analyses demonstrated the need to incorporate updated inspection requirements to detect fatigue cracking of PSEs. We are proposing this AD to detect and correct fatigue cracking of various PSEs, which could adversely affect the structural integrity of these airplanes.

Relevant Service Information

We reviewed Subsection B, AWLs – Structural Inspections, of Section 9, "Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs)," of Boeing 737-600, -700, -700C, -800, -900, and -900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, Revision July 2011. The service information describes procedures for revising the airworthiness limitations of the maintenance planning document. Subsection B of this document contains updated inspection requirements to detect fatigue cracking of PSEs.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD affects 1,200 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Document Revision	1 work-hour X $85 per hour = $85	$0	$85	$102,000

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2012-0998; Directorate Identifier 2011-NM-249-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, with an original airworthiness certificate or original export certificate of airworthiness issued before April 3, 2012.

(2) This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (j) of this AD. The request should include a description of changes to the required inspections that will ensure the continued damage tolerance of the affected structure. The FAA has provided guidance for this determination in FAA Advisory Circular (AC) 25.1529-1A, dated November 20, 2007 (http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/list/AC%2025.1529-1A/$FILE/AC%2025.1529-1A.pdf).

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 52, Doors; 53, Fuselage; 54, Nacelles/Pylons; 55, Stabilizers; and 57, Wings.

(e) Unsafe Condition

This AD was prompted by a new revision to the airworthiness limitations of the maintenance planning data document. We are issuing this AD to detect and correct

fatigue cracking of various principal structural elements (PSEs), which could adversely affect the structural integrity of these airplanes.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Maintenance Program Revision

(1) Within 12 months after the effective date of this AD, revise the maintenance program by incorporating the information in Subsection B, AWLs – Structural Inspections, of Section 9, "Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs)," of Boeing 737-600, -700, -700C, -800, -900, and -900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, Revision July 2011, except as provided by paragraph (h) of this AD.

(2) The initial compliance time for the inspections is within the applicable times specified in Subsection B, AWLs – Structural Inspections, of Section 9, "Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs)," of Boeing 737-600, -700, -700C, -800, -900, and -900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, Revision July 2011, or within 18 months after the effective date of this AD, whichever occurs later; or within the applicable time specified in Subsection B, AWLs – Structural Inspections, of Section 9, "Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs)," of Boeing 737-600, -700, -700C, -800, -900, and -900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, Revision July 2011, from the time of installation for new parts.

(3) Reports specified in Section 9, "Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs)," of Boeing 737-600, -700, -700C, -800, -900, and -900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, Revision July 2011, may be submitted within 10 days after the airplane

is returned to service, instead of 10 days after each individual finding as specified in Section 9.

(h) No Alternative Inspections and Inspection Intervals

After accomplishing the actions required by paragraph (g) of this AD, no alternative actions (i.e. alternative inspections) or inspection intervals may be used or incorporated unless the alternative action or interval is approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j) of this AD.

(i) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), ANM-120S, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the

Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required in the area affected by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: nancy.marsh@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 12, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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